

## 7. How Safe Is The Drinking Water In My Household Well?

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EPA regulates public water systems; it does not have the authority to regulate private wells. Approximately 15 percent of Americans rely on their own private drinking water supplies (*Drinking Water from Household Wells*, 2002), and these supplies are not subject to EPA standards. Unlike public drinking water systems serving many people, they do not have experts regularly checking the water's source and its quality before it is sent to the tap. These households must take special precautions to ensure the protection and maintenance of their drinking water supplies.

*Drinking Water from Household Wells* is an EPA publication available to specifically address special concerns of a private drinking water supply. To learn more, or to obtain a copy, visit [www.epa.gov/safewater/privatewells](http://www.epa.gov/safewater/privatewells), or call the Safe Drinking Water Hotline.

### How Much Risk Can I Expect?

The risk of having problems depends on how good your well is—how well it was built and located, and how well you maintain it. It also depends on your local environment. That includes the quality of the aquifer from which your water is drawn and the human activities going on in your area that can affect your well.

Several sources of pollution are easy to spot by sight, taste, or smell. However, many serious problems can be found only by testing your water. Knowing the possible threats in your area will help you decide the kind of tests you may need.



### What Should I Do?

There are six basic steps you can take to help protect your private drinking water supply:

1. Identify potential problem sources.
2. Talk with local experts.
3. Have your water tested periodically.
4. Have the test results interpreted and explained clearly.
5. Set and follow a regular maintenance schedule for your well, and keep up-to-date records.
6. Immediately remedy any problems.

### Identify Potential Problem Sources

Understanding and spotting possible pollution sources is the first step to safeguarding your drinking water. If your drinking water comes from a well, you may also have a **septic system**. Septic systems and other

on-site wastewater disposal systems are major potential sources of contamination of private water supplies if they are poorly maintained or located improperly, or if they are used for disposal of toxic chemicals. Information on septic systems is available from local health departments, state agencies, and the National Small Flows Clearinghouse ([www.epa.gov/owm/mab/smcomm/nsfc.htm](http://www.epa.gov/owm/mab/smcomm/nsfc.htm)) at (800) 624-8301. A septic system design manual and guidance on system

maintenance are available from EPA ([www.epa.gov/OW-OWM.html/mtb/decent/homeowner.htm](http://www.epa.gov/OW-OWM.html/mtb/decent/homeowner.htm)).

## ***Talk With Local Experts***

Ground water conditions vary greatly from place to place, and local experts can give you the best information about your drinking water supply. Some examples are your health department's "sanitarian," local water-well contractors, public water system officials, county extension agents of the Natural Resources Conservation Service (NRCS), local or county planning commissions, and your local library.

## ***Have Your Water Tested Periodically***

Test your water every year for total **coliform** bacteria, nitrates, total dissolved solids, and pH levels. If you suspect other contaminants, test for these as well. As the tests can be expensive, limit them to possible problems specific to your situation. Local experts can help you identify these contaminants. You should also test your water after replacing or repairing any part of the system, or if you notice any change in your water's look, taste, or smell.

Often, county health departments perform tests for bacteria and nitrates. For other substances, health departments, environmental offices, or county governments should have a list of state-certified laboratories. Your State Laboratory Certification Officer can also provide you with this list. Call the Safe Drinking Water Hotline for the name and number of your state's certification officer. Any laboratory you use should be certified to do drinking water testing.

## ***Have Your Test Results Interpreted And Explained Clearly***

Compare your well's test results to federal and state drinking water standards (see Appendix A, or visit [www.epa.gov/safewater/mcl.html](http://www.epa.gov/safewater/mcl.html) or call the Safe Drinking Water Hotline). You may need to consult experts to aid you in understanding your results, such as the state agency that licenses water well contractors, your local health department, or your state's drinking water program.

## **Protecting Your Ground Water Supply**

- Periodically inspect exposed parts of the well for problems such as:
  - Cracked, corroded, or damaged well casing
  - Broken or missing well cap
  - Settling and cracking of surface seals.
- Slope the area around the well to drain surface runoff away from the well.
- Install a well cap or sanitary seal to prevent unauthorized use of, or entry into, the well.
- Disinfect drinking water wells at least once per year with bleach or hypochlorite granules, according to the manufacturer's directions.
- Have the well tested once a year for coliform bacteria, nitrates, and other constituents of concern.
- Keep accurate records of any well maintenance, such as disinfection or sediment removal, that may require the use of chemicals in the well.
- Hire a certified well driller for any new well construction, modification, or abandonment and closure.
- Avoid mixing or using pesticides, fertilizers, herbicides, degreasers, fuels, and other pollutants near the well.
- Do not dispose of wastes in dry wells or in abandoned wells.
- Do not cut off the well casing below the land surface.
- Pump and inspect septic systems as often as recommended by your local health department.
- Never dispose of hazardous materials in a septic system.

## ***Set A Regular Maintenance Schedule For Your Well And Your Septic System***

Proper well and septic system construction and continued maintenance are keys to the safety of your water supply. Your state water well and septic system contractor licensing agency, local health department, or local public water system professional can provide information on well construction. Make certain your contractors are licensed by the state, if required, or certified by the National Ground Water Association.

Maintain your well, fixing problems before they reach crisis levels, and keep up-to-date records of well installation and repairs, as well as plumbing and water costs. Protect your own well area from contamination.

## ***Immediately Remedy Any Problems***

If you find that your well water is contaminated, fix the problem as soon as possible. Consider connecting into a nearby community water system, if one is available. You may want to install a water treatment device to remove impurities. Information on these devices is provided

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*Animal waste  
can  
contaminate  
your  
water supply*

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on page 16. If you connect to a public water system, remember to close your well properly.

## ***After A Flood-Concerns And Advisories***

- Stay away from well pump to avoid electric shock.
- Do not drink or wash from a flooded well.
- Pump the well until water runs clear.
- If water does not run clear, contact the county or state health department or extension service for advice.

